



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Sw

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,369	12/21/2001	Junji Kondou	M2047-37	5151
7278	7590	03/29/2005	EXAMINER	
DARBY & DARBY P.C. P. O. BOX 5257 NEW YORK, NY 10150-5257			AGHDAM, FRESHTEH N	
			ART UNIT	PAPER NUMBER
			2631	

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/032,369

Applicant(s)

KONDOU ET AL.

Examiner

Freshteh N. Aghdam

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10/032,369, filed on 12/21/2001.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art, and further in view of Razavilar et al (US Pub. 2003/0104831).

As to claims 1, 11, 14, and 18, the admitted prior art teaches a subband receiving apparatus comprising a plurality of subband filters 100 having different frequency bands for the received signal; a plurality of receiving quality detection means 102 responsive to the outputs of the subband filters 100; a receiving quality control means S23 based on the receiving quality information provided by the plurality of quality detection means 102 wherein for each pass band filter there is a corresponding quality detection means 102 (Fig. 14; Pg. 2, Par. 1, 2, and 3). The admitted prior art is silent about the first and second transmitting/receiving apparatuses, which mutually carry out transmission and

Art Unit: 2631

reception; the receiving quality control means is a signal, which becomes a basis for controlling the level of the transmitted signal by the first transmitting/receiving apparatus, and the first transmitting/receiving apparatus adjusts based on the receiving quality control signal that has been transmitted by the second transmitting/receiving apparatus to each passband filter. Razavilar et al, teach first and second transmitting/receiving apparatuses, which mutually carry out transmission and reception; the receiving quality control signal is a signal, which is a basis for controlling the level of the transmitted signal (i.e. transmit power levels) by the first transmitting/receiving apparatus wherein the first transmitting/receiving apparatus adjusts the level of the signal to be transmitted based on the receiving quality control signal (Steps 412, 414, and 416), which has been transmitted by the second transmitting/receiving apparatus (i.e. the feedback channel) and transmitting the adjusted signal to the second transmitting/receiving apparatus (Fig. 2, 4, and 6; Pg. 1, Par. 9; Pg. 3, Par. 36; Pg. 6, Par. 60). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Razavilar et al with the admitted prior art in order to reduce the effect of co-channel interference (Pg. 1; Par. 5).

As to claims 2 and 12, Razavilar et al teach that the receiving quality information is measuring received signal strength and error detection in the received signal (Fig. 6). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Razavilar et al with the admitted prior art in order to reduce the effect of co-channel interference (Pg. 1; Par. 5).

As to claims 3 and 13, Razavilar et al teach receiving quality control means the receiving quality information as the receiving quality control signal to be transmitted to the first communication apparatus (i.e. feedback channel) see (Fig. 3, 4, and 6; $p_i(n+1)$ and $r_i(n+1)$). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Razavilar et al with the admitted prior art in order to reduce the effect of co-channel interference (Pg. 1; Par. 5).

As to claims 4, 5, and 19, Razavilar et al teach that the receiving quality control means includes a power control signal $p_i(n+1)$, which adjusts the electric energy level of the signal to be transmitted by the first transmitting/receiving apparatus to the second transmitting/receiving apparatus (Fig. 4, Par. 60). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Razavilar et al with the admitted prior art in order to reduce the effect of co-channel interference (Pg. 1; Par. 5).

As to claims 6 and 7, the admitted prior art teaches a plurality of receiving quality detection means 102, which provide error detection information corresponding to each subband filter 100 (Pg. 2, Par. 3) and a signal representing this number of error bits in receiving is the receiving control signal S23. One of ordinary skill in the art would clearly recognize that the error rate measurement as recited in the claim is a type of error detection information in which is well known in the art (i.e. bit error rate or BER).

As to claims 8 and 15, Razavilar et al, teach a transmitting/receiving system wherein the first transmitting/receiving apparatus comprises a modulation means for applying a modulation according to the characteristics of a transmission way (Pg. 8, Par. 72). Therefore, it would have been obvious to one of ordinary skill in the art to

Art Unit: 2631

combine the teaching of Razavilar et al with the admitted prior art in order to determine appropriate power and rate for data transmission.

As to claims 9, 10, 16, and 17, the admitted prior art teaches a transmitter generates applies a spread spectrum signal to a transmitted signal and carries out transmission and demodulating means 101 in the receiving section (Pg. 1, Par. 1; Pg. 2, Par. 2).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kleidder et al (US Patent 6,154,489), Takai et al (US Patent 5,504,774), Suzuki (US Patent 6,055,415), and Bose et al (US Patent 5,008,939).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freshteh N. Aghdam whose telephone number is (571) 272-6037. The examiner can normally be reached on Monday through Friday 9:00-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


MOHAMMED GHAYOUR
SUPERVISORY PATENT EXAMINER

Art Unit: 2631

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Freshteh Aghdam

March 18, 2005
